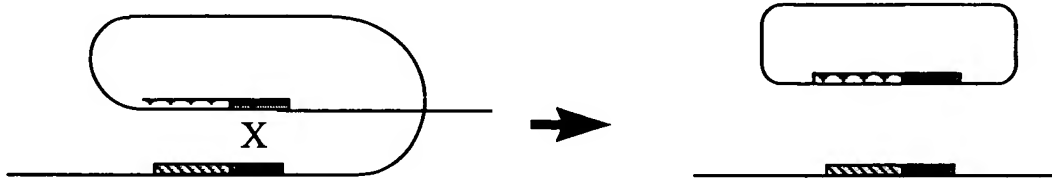


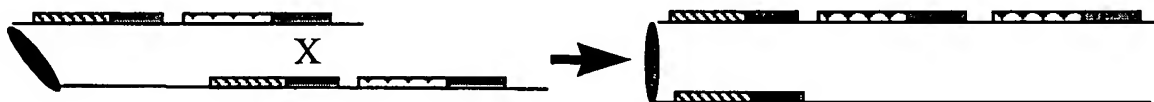
**Figure 1. Three pathways for obtaining “deletion derivatives”**



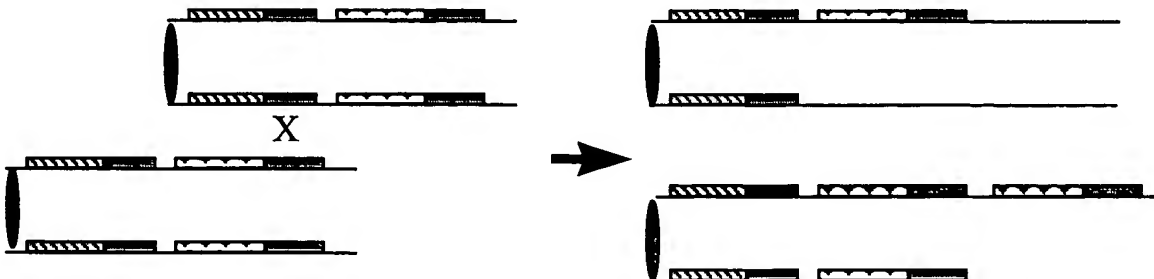
**A. Loop-out**



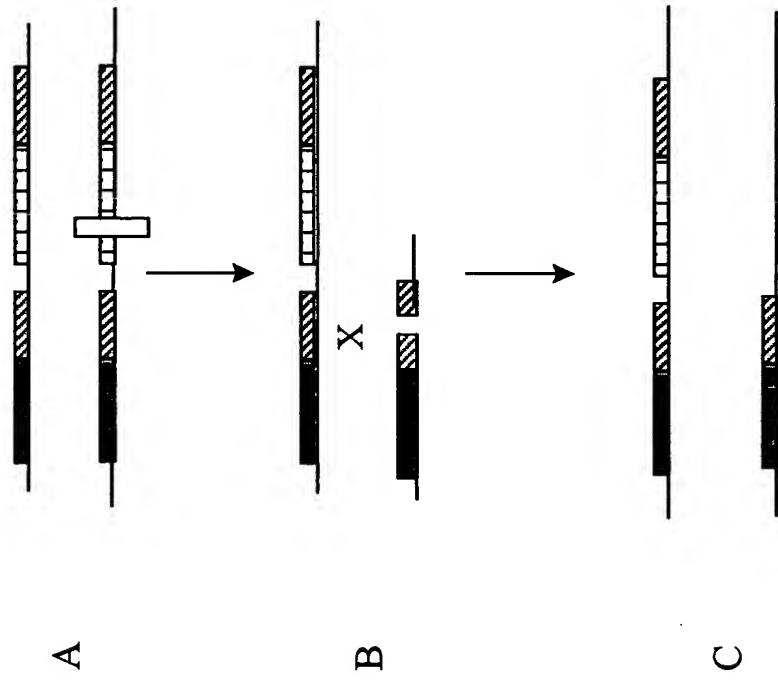
**B. Unequal sister chromatid crossover**



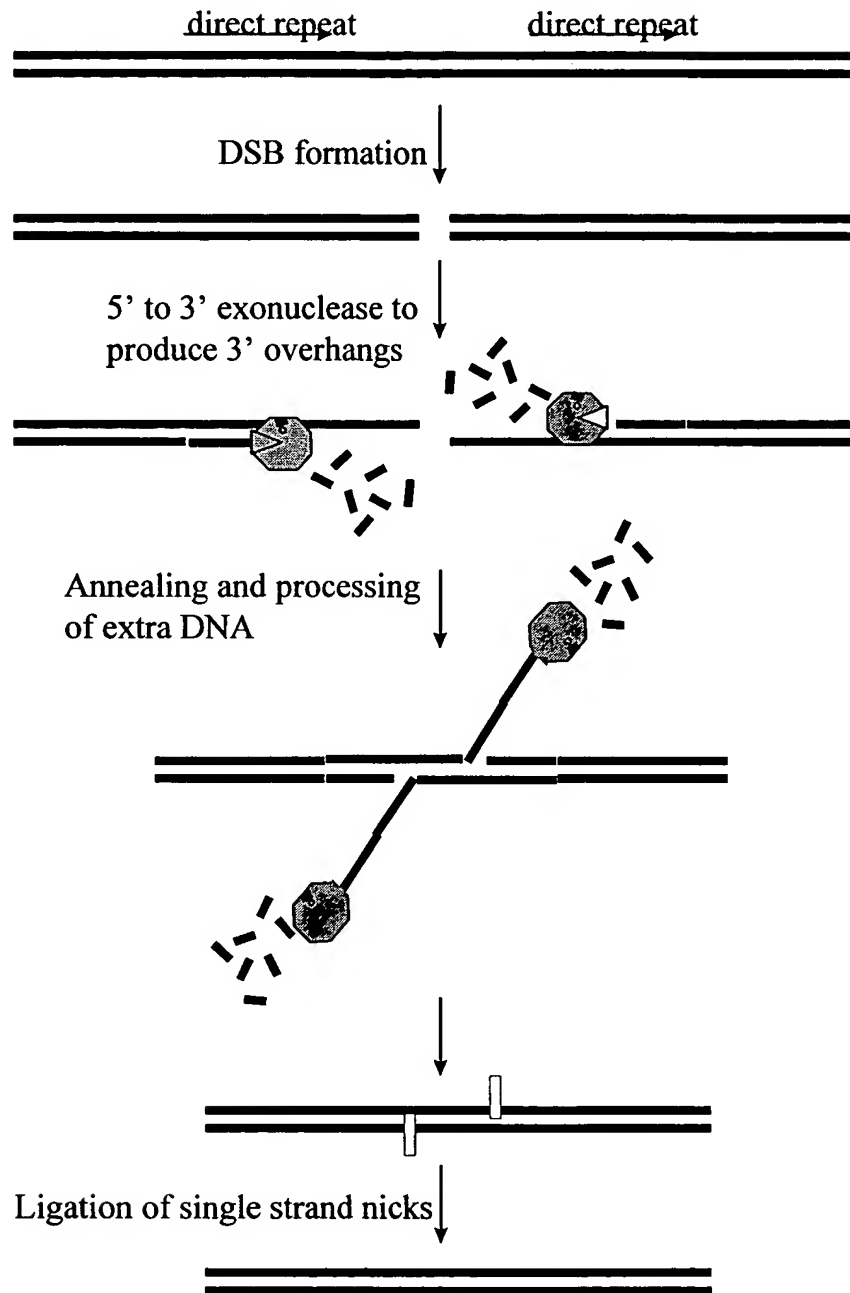
**C. Unequal interhomologue crossover**



**Figure 2. Gene conversion pathway (nonreciprocal recombination)  
for obtaining “deletion derivatives”**



**Figure 3. Single strand annealing model**



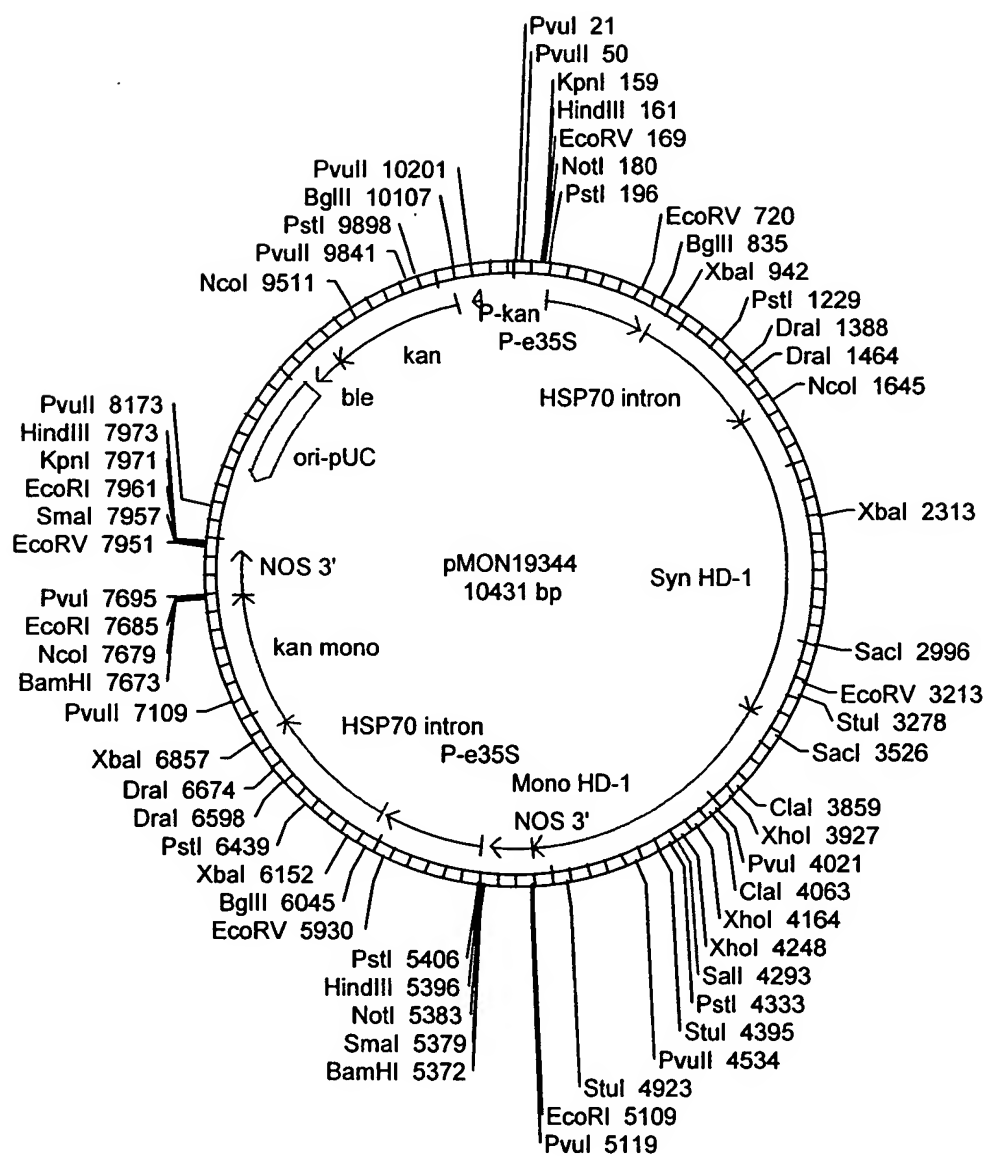
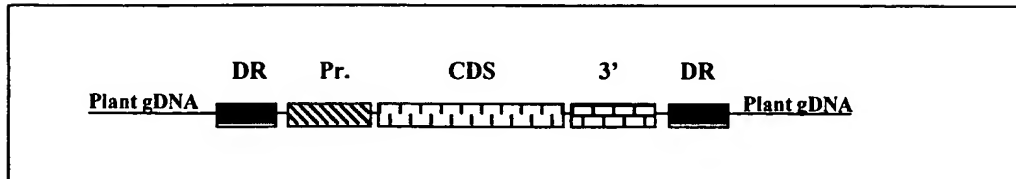


Figure 4.

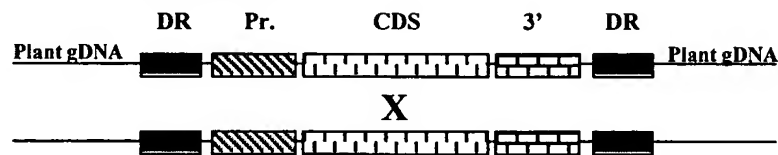
# *Direct Repeat Induced, Non-Reciprocal Recombination-Mediated Transgene Deletion*

## I. Hemizygous R<sub>1</sub> Transgenic Plant

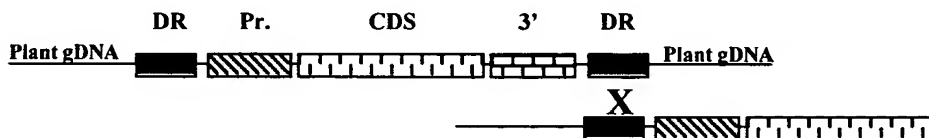


## II. Homozygous S<sub>1</sub> Transgenic Plant at Meiosis

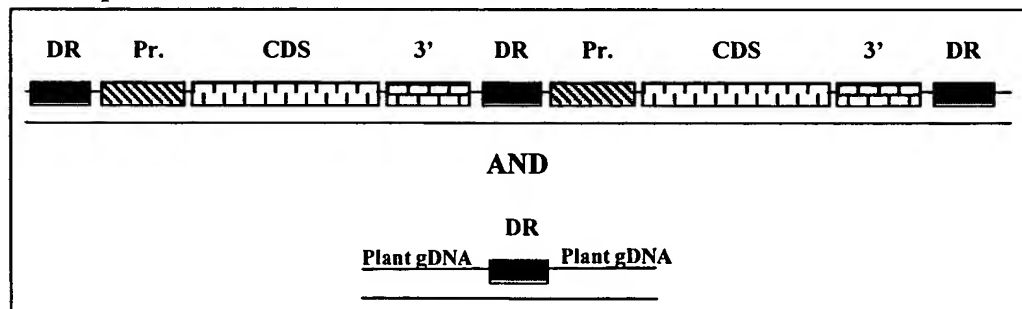
### A. Reciprocal Recombination



### B. Non-Reciprocal Recombination



## III. F<sub>1</sub> Recombinant Progeny Plants

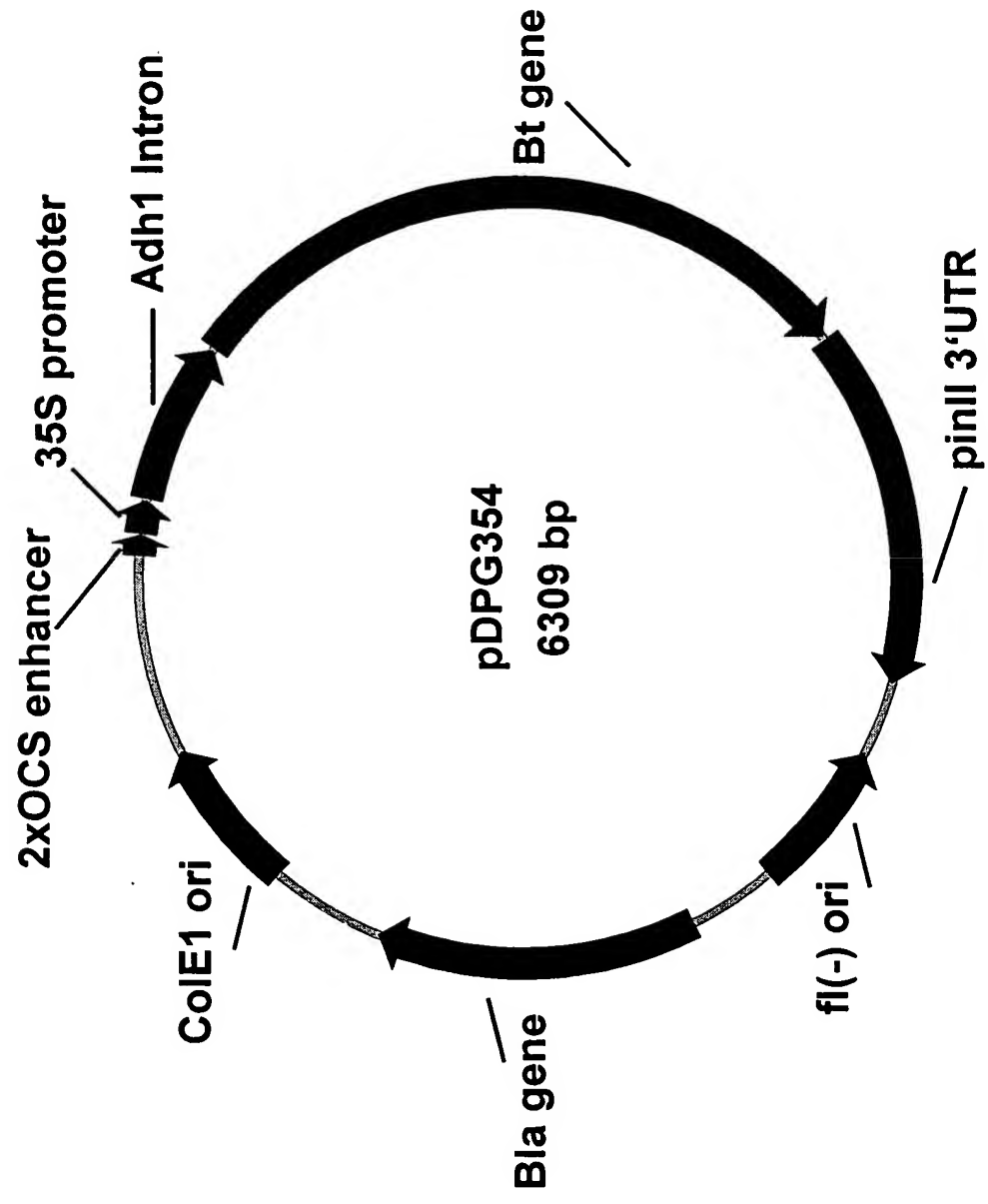


In the graphic illustration:

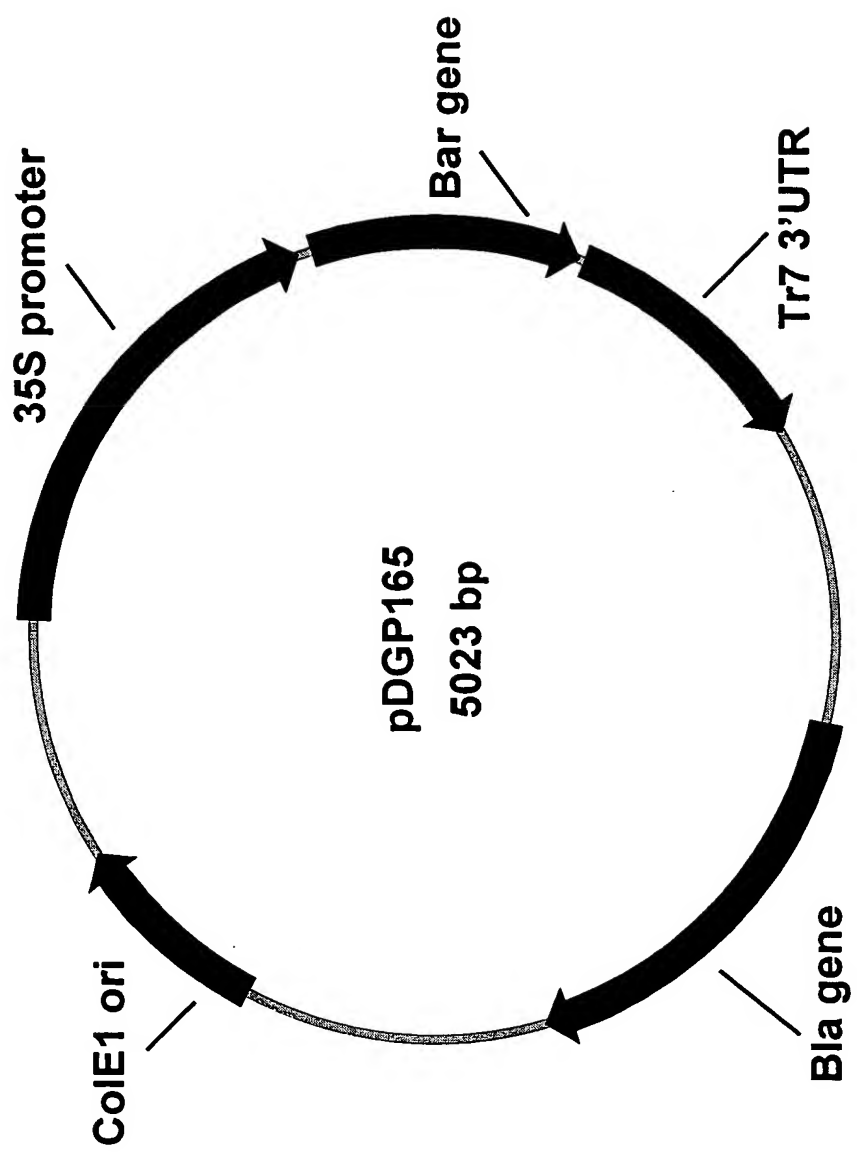
Plant gDNA	=	plant genomic DNA flanking the site of transgene integration
DR	=	Direct Repeat
Pr.	=	"Promoter"
CDS	=	coding sequence
3'	=	transcription terminator

Figure 5.

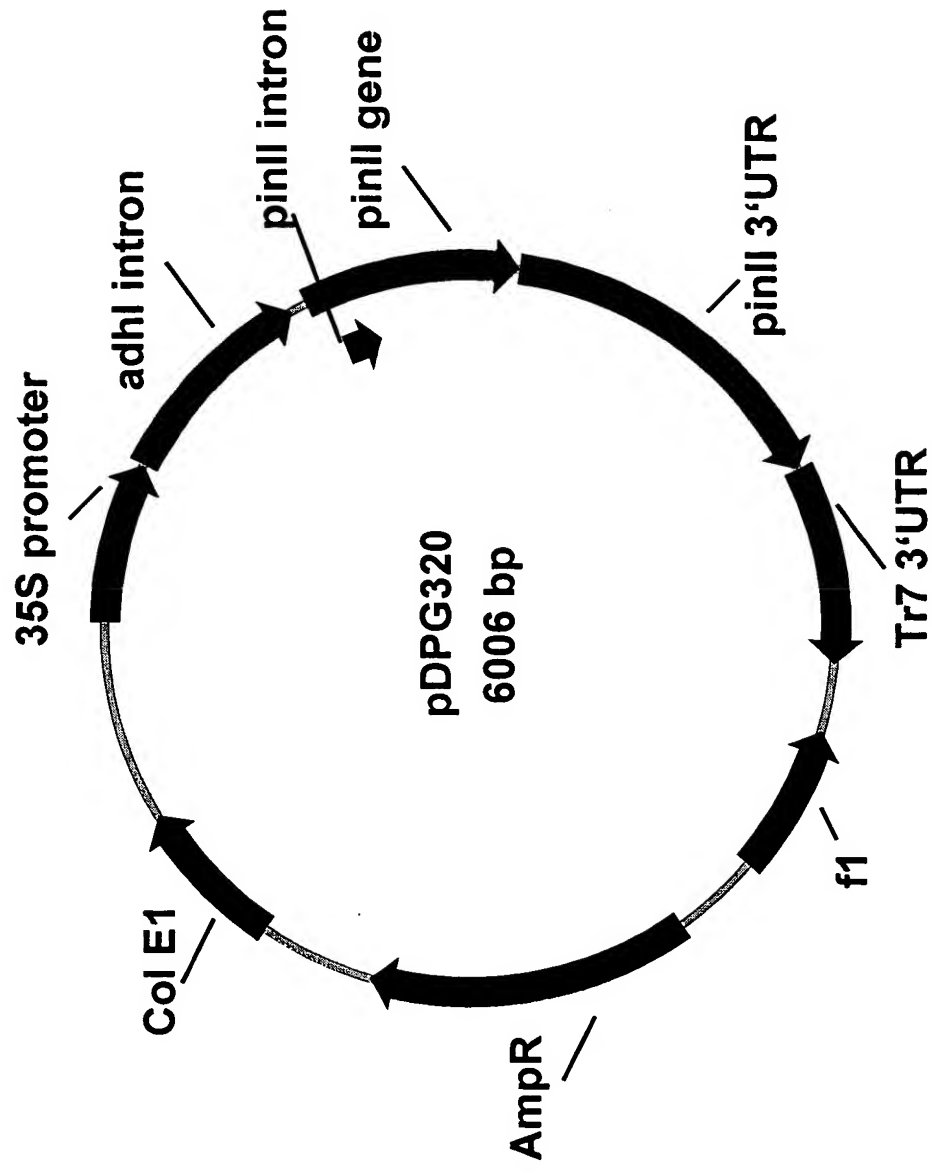
**Figure 6**



**Figure 7**



**Figure 8**





## DBT418 Transgene Insertion

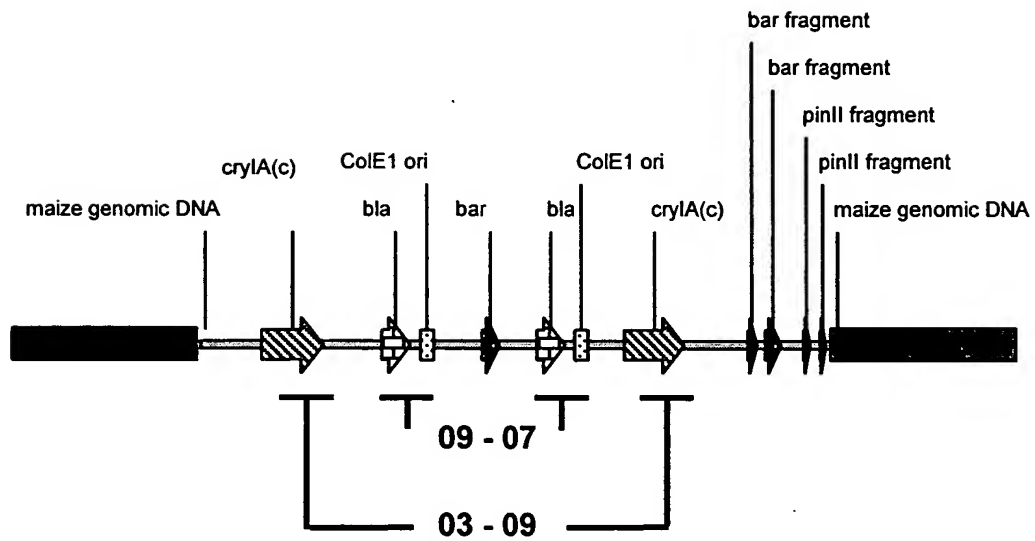
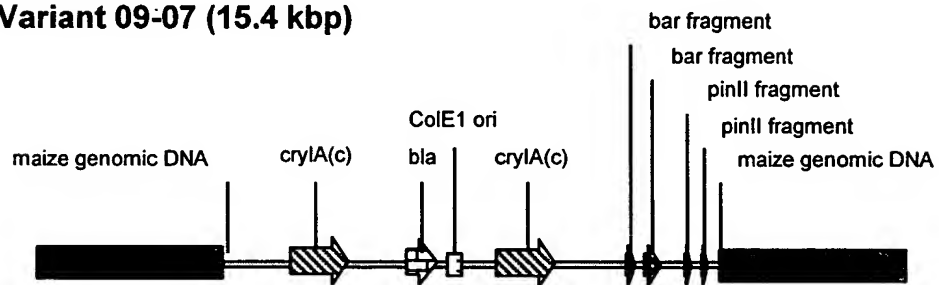


Figure 9.

## DBT418 Altered Transgene Insertions

### Variant 09-07 (15.4 kbp)



### Variant 03-09 (9.2 kbp)

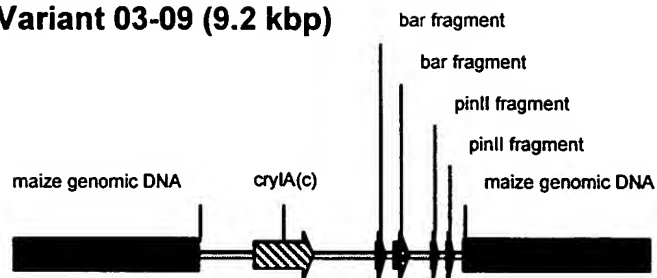
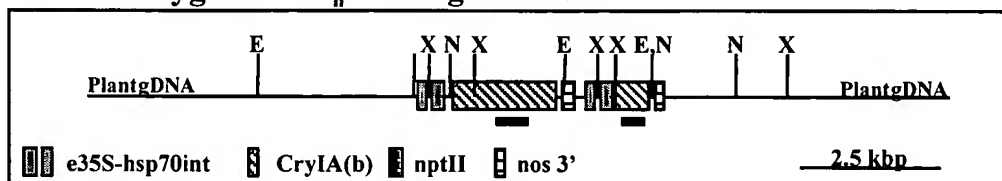


Figure 10.

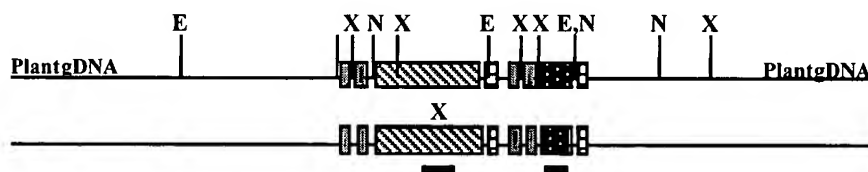
**Non-Reciprocal Recombination-Mediated  
Transgene Deletion in MON849**

**I. Hemizygous BC<sub>n</sub> Transgenic Plant**



**II. Homozygous S<sub>1</sub> Transgenic Plant at Meiosis**

**A. Reciprocal Recombination**



**B. Non-Reciprocal Recombination**

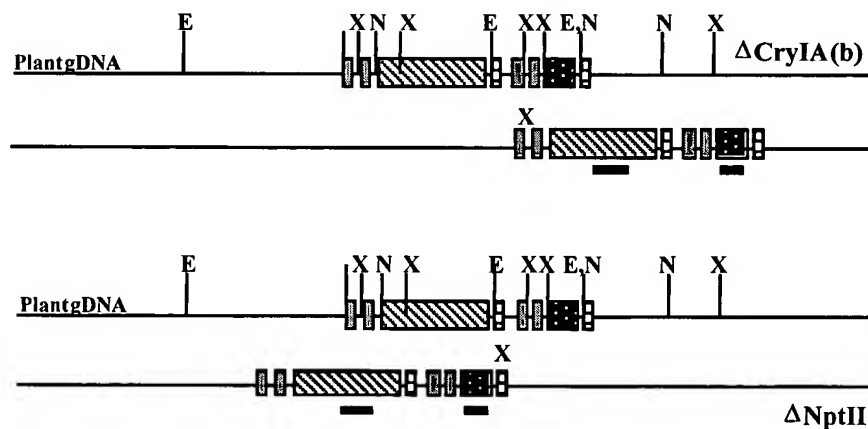
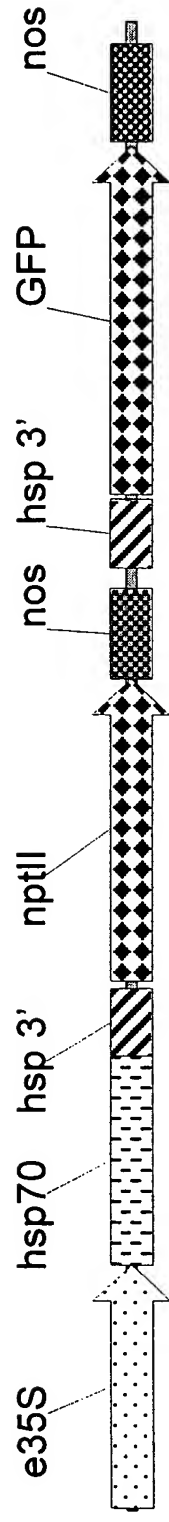


Figure 11.



**pMON36133**

Figure 12.

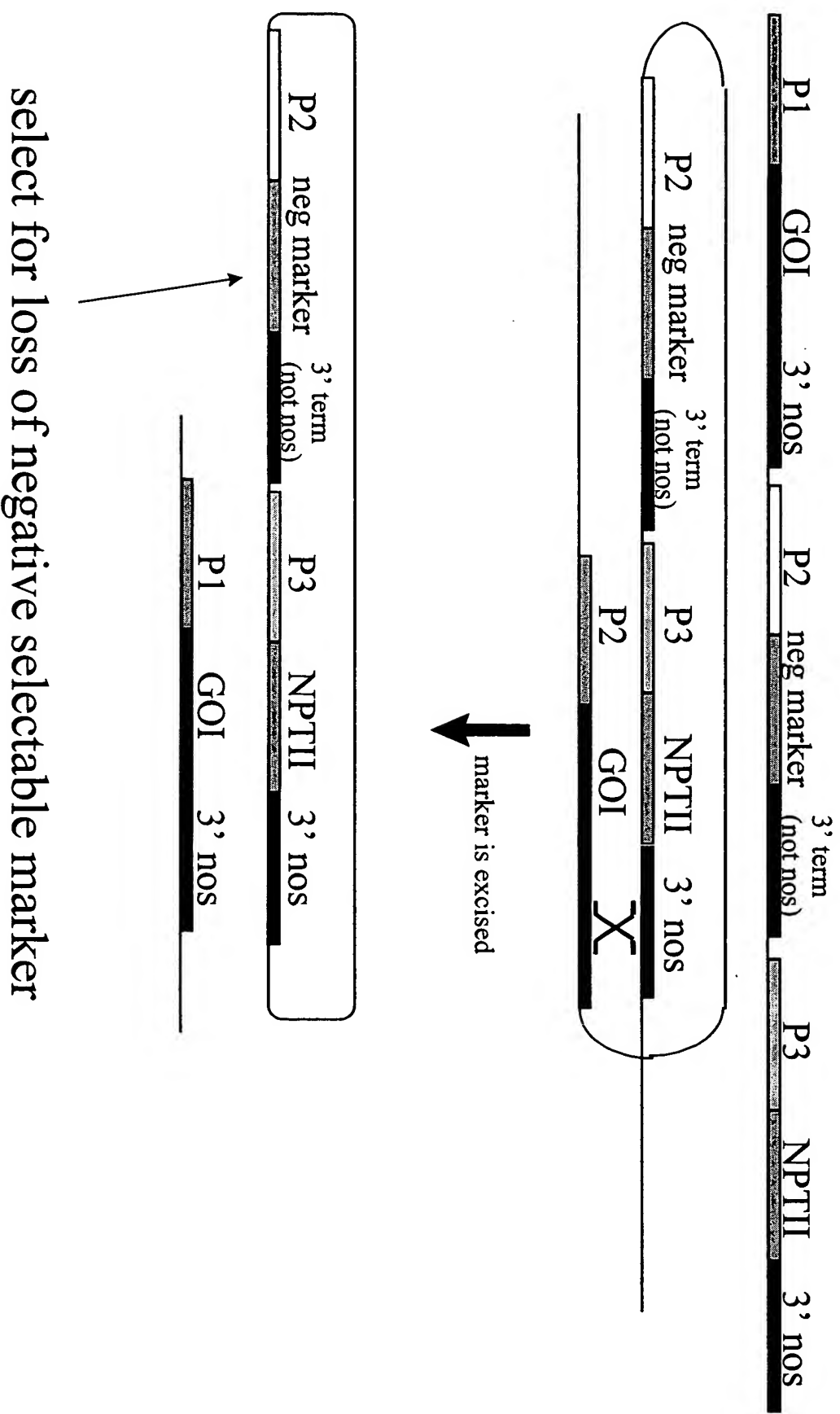


Figure 13